

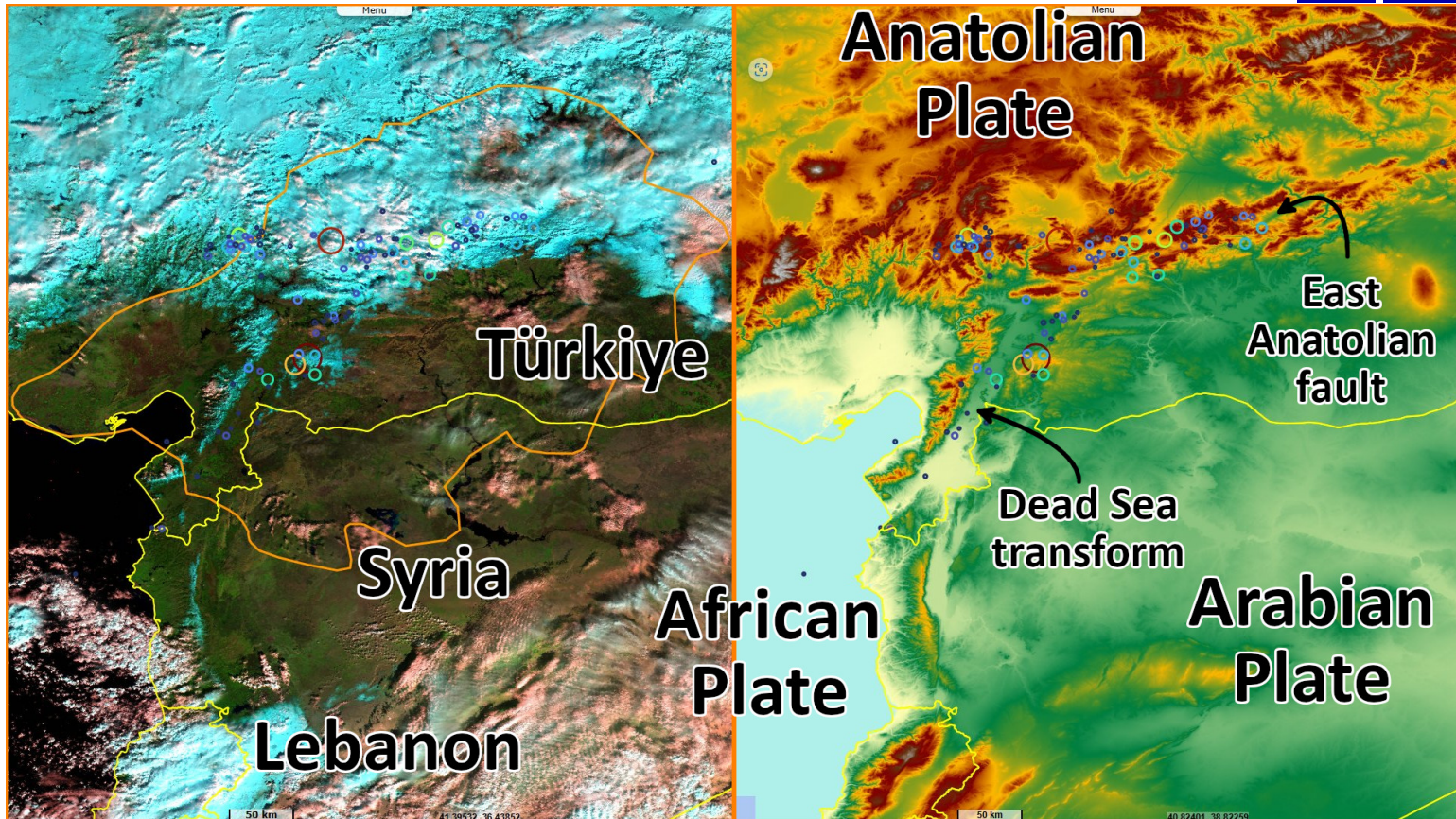
Twin earthquake causes massive loss of life in eastern Anatolia, Türkiye, Syria

Sentinel-2 MSI acquired on 10 January 2023 at 08:23:21 UTC
Sentinel-2 MSI acquired on 25 January 2023 at 08:21:29 UTC
Sentinel-3 SLSTR RBT & LST acquired on 08 February 2023 at 07:52:17 UTC
Sentinel-2 MSI acquired on 09 February 2023 at 08:21:11 UTC

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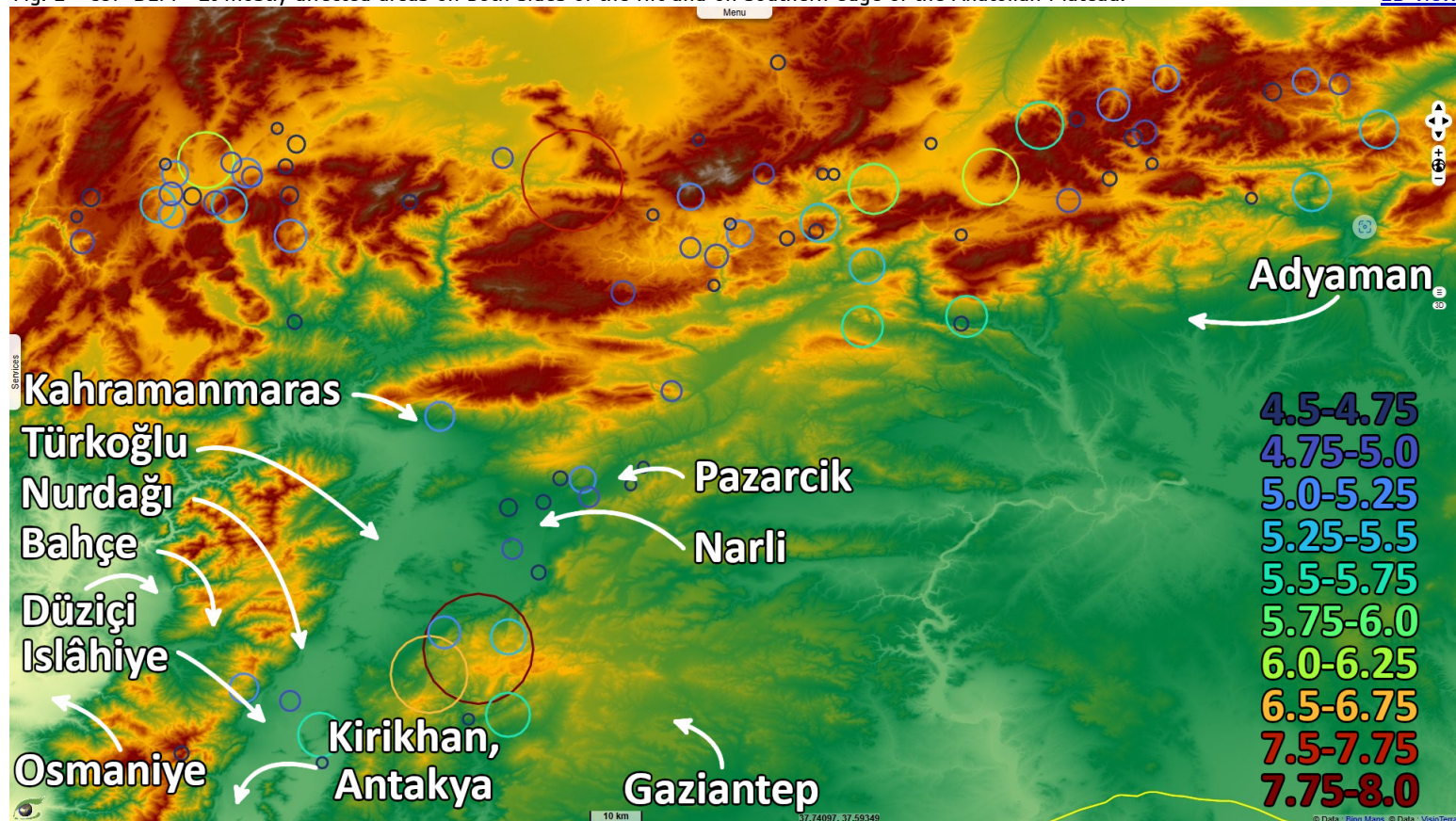
Fig. 1 - S3 SLSTR (08.02.2023) / COP-DEM - Two large earthquakes happened at the junction between the East Anatolian fault and the Dead Sea Rift. [2D view](#) [2D view](#)



On 6 February 2023, a Mw 7.8 earthquake struck southern and central Turkey, as well as northern and western Syria. It occurred 34 km west of the city of Gaziantep at 04:17 am TRT (01:17 UTC), with a maximum Mercalli intensity of XI. A Mw 7.7 earthquake occurred nine hours later, centered 95 km to the north-northeast in Kahramanmaraş Province.

Fig. 2 - COP-DEM - It mostly affected areas on both sides of the rift and on southern edge of the Anatolian Plateau.

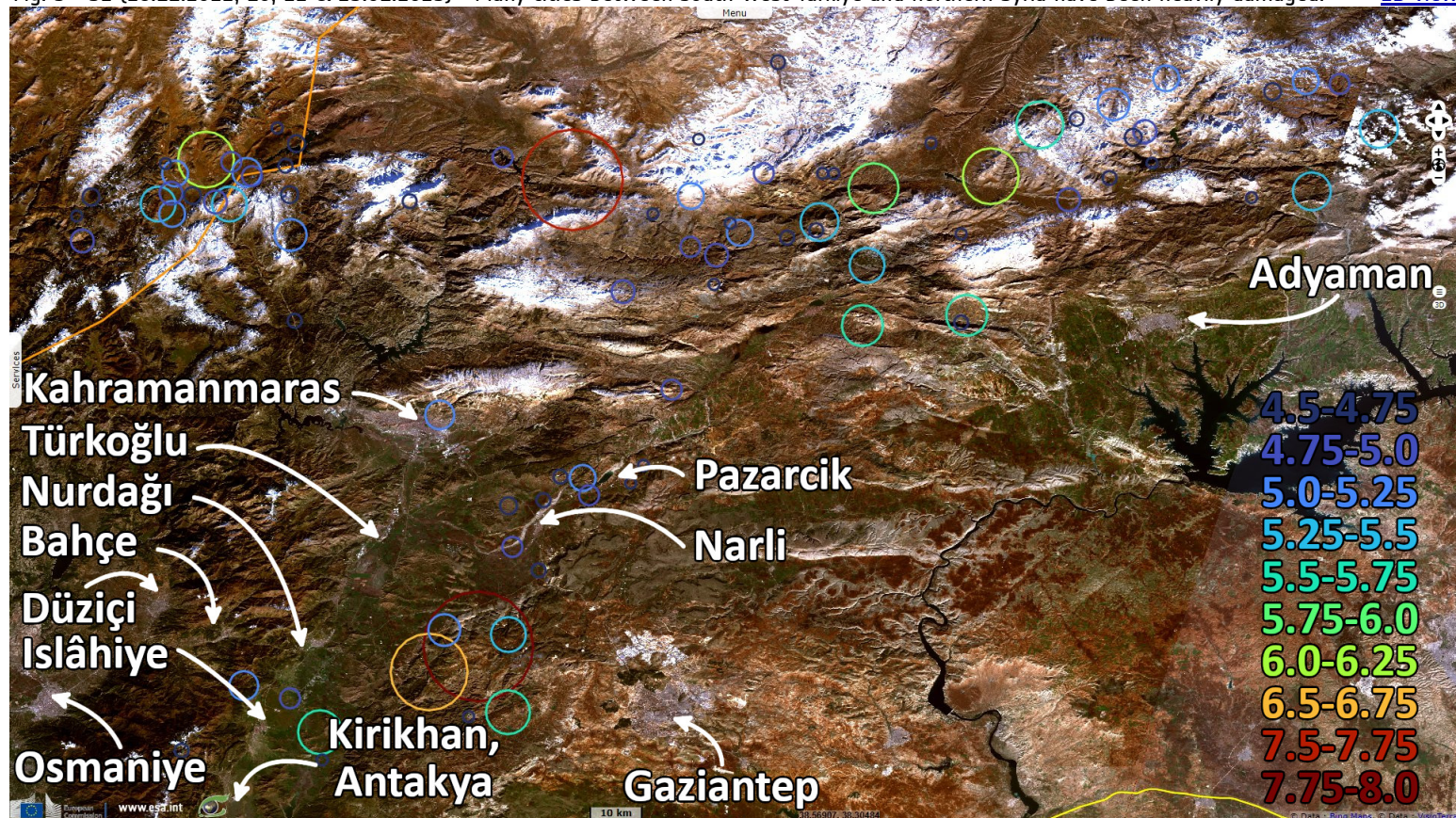
[2D view](#)



Saba Aziz of Global News [reminded](#) some specific difficulties for the rescue teams: "Extreme cold weather is impeding rescue efforts in the second day of searching for survivors of deadly earthquakes in Turkey and Syria. Overnight temperatures in the worst-hit areas are set to dip below freezing, raising concerns about those left homeless or still trapped under the rubble."

Fig. 3 - S2 (28.11.2022; 10, 22 & 25.01.2023) - Many cities between south-west Türkiye and northern Syria have been heavily damaged.

[2D view](#)



"In the Turkish city of Gaziantep, the epicenter of Monday's 7.8 magnitude quake, the overnight forecast for Tuesday was -5 degrees Celsius. In neighbouring Syria, temperature in the northeastern city of Aleppo, could drop as low as -2 degrees Celsius, according to the Weather Channel."

Fig. 4 - S2 (10.01.2023) - Gaziantep, one of the largest cities of the area.

[2D view](#)



The media Middle East Eye [adds](#): "The Turkish government has dispatched thousands of search and rescue workers to southern Turkey, which was hit by two earthquakes." "The first earthquake with a magnitude of 7.8 brought down entire apartment blocks in Turkish cities and piled more devastation on millions of Syrians displaced by years of war." "The worst quake to strike Turkey this century, it came before sunrise amid harsh winter weather and was followed in the early afternoon by another large 7.7 magnitude earthquake."

Fig. 5 - S2 (09.02.2023) - It has been heavily affected by the earthquake at a time of well under freezing temperatures.

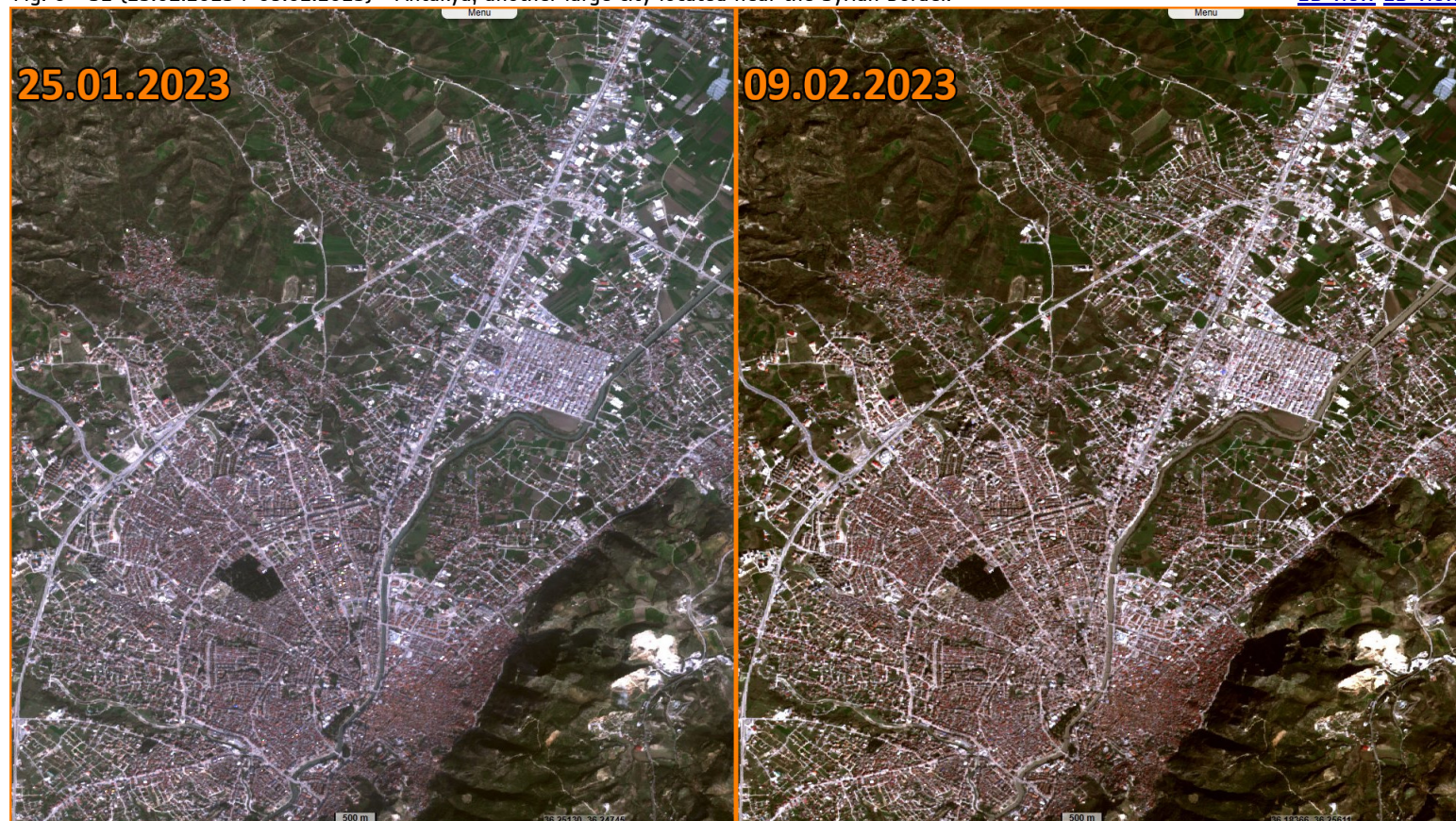
[2D view](#)



On 15 February 2023, Ali Kucukgocmen [published](#) for Reuters: "The disaster, with a combined death toll in Turkey and neighbouring Syria exceeding 41,000, has ravaged cities in both countries, leaving many survivors homeless in near-freezing winter temperatures."

Fig. 6 - S2 (25.01.2023 / 09.02.2023) - Antakya, another large city located near the Syrian border.

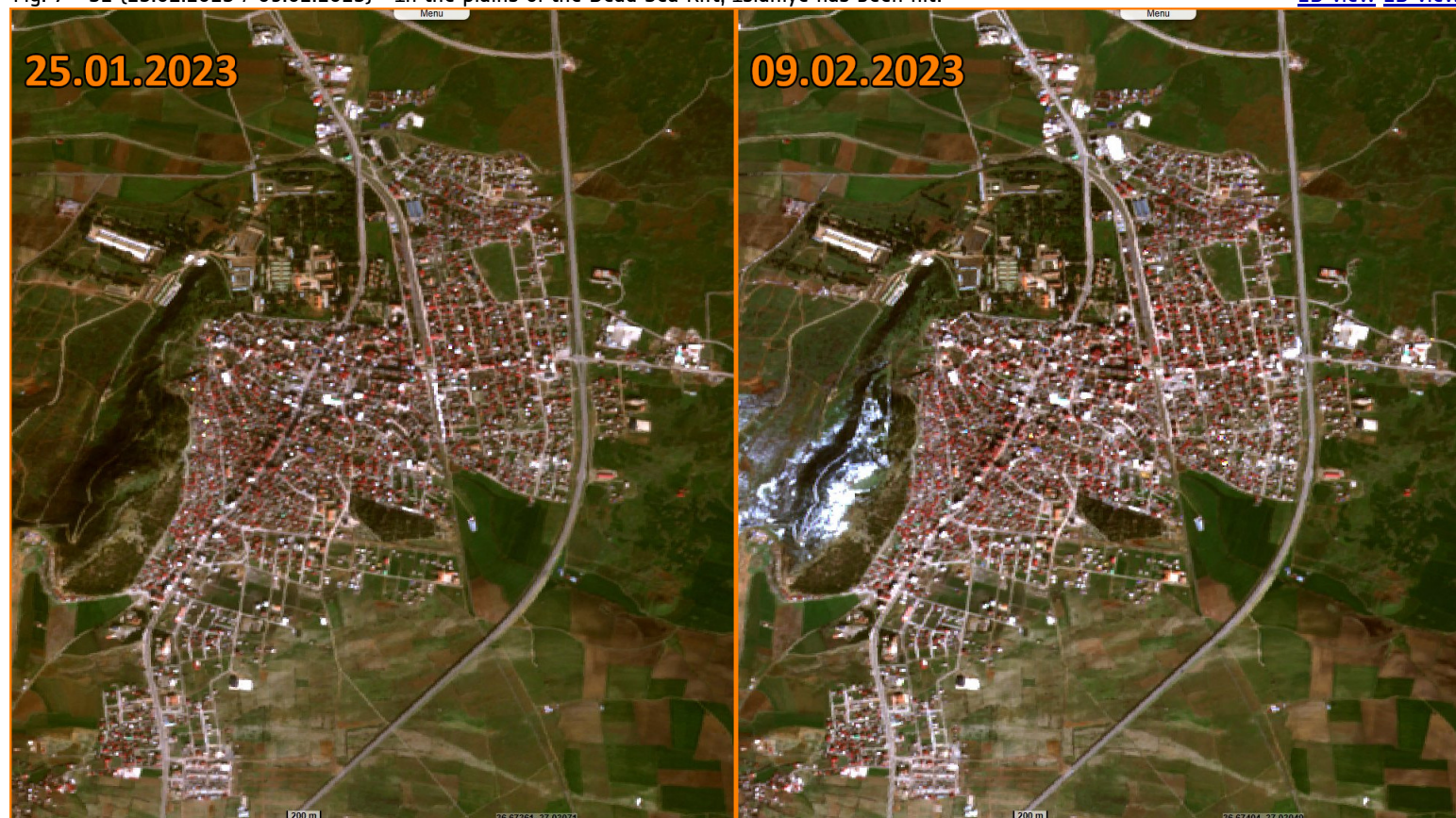
[2D view](#) [2D view](#)



"A first convoy of U.N. aid entered rebel-held northwest Syria from Turkey via the newly-opened Bab al-Salam crossing. Syrian President Bashar al-Assad agreed on Monday to allow U.N. aid to enter from Turkey via two more border crossings, marking a shift for Damascus which has long opposed cross-border aid deliveries to the rebel enclave. Nearly 9 million people in Syria were affected by the earthquake, the United Nations said, as it launched a \$400 million funding appeal."

Fig. 7 - S2 (25.01.2023 / 09.02.2023) - In the plains of the Dead Sea Rift, İslâhiye has been hit.

[2D view](#) [2D view](#)



"The Turkish toll was 35,3418 killed, Erdogan said. More than 5814 have died in Syria, according to a Reuters tally of reports from Syrian state media and a U.N. agency. Survivors joined a mass exodus from earthquake-hit zones, leaving their homes and unsure if they can ever come back. More than 2.2 million people have left the worst-hit areas already, Erdogan said, and hundreds of thousands of buildings have become uninhabitable."

Fig. 8 - S2 (25.01.2023 / 09.02.2023) - Nurdagi before and after the earthquakes.

[2D view](#) [2D view](#)



Kristina Jovanovski [reports](#) an example of solution for NBC News with the city of Erzin: "Residents and officials say Erzin suffered no deaths and saw no buildings collapse in the powerful temblor, and they credit a long-standing determination not to allow construction that violated the country's codes."

Fig. 9 - S2 (10.01.2023 / 09.02.2023) - Further north, the large city of Kahramanmaraş has faced massive damage.

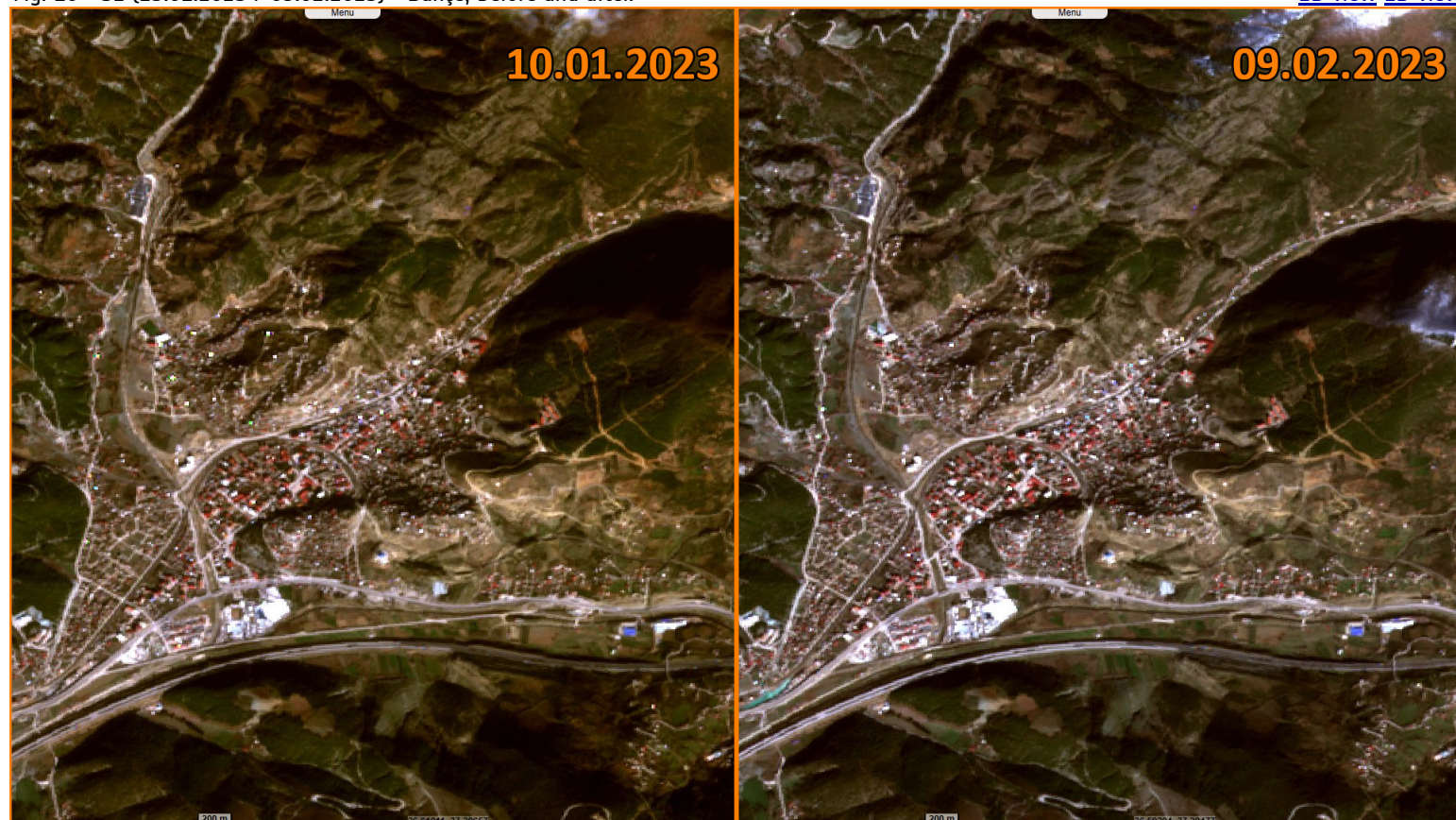
[2D view](#) [2D view](#)



"Emre Tibikoglu, 39, who has been working for the municipality for six years, said he believed 20 000 people had flocked to Erzin since the earthquake, about a 50% increase in the town's population. 'We know we are in an earthquake area,' he said, citing the insistence of the current mayor and previous ones not to allow buildings that failed to meet construction codes to be put up."

Fig. 10 - S2 [25.01.2023 / 09.02.2023] - Bahçe, before and after.

[2D view](#) [2D view](#)



"Tibikoglu said that whenever officials realized there were buildings that had been illegally built, they would get them taken down. 'Some local people were really mad about it,' he said of the residents living in those buildings. But he said the mayor held firm, knowing that a major earthquake could come one day."

Fig. 11 - S2 [10.01.2023 / 09.02.2023] - Adyaman, another city located at east of the damaged area.

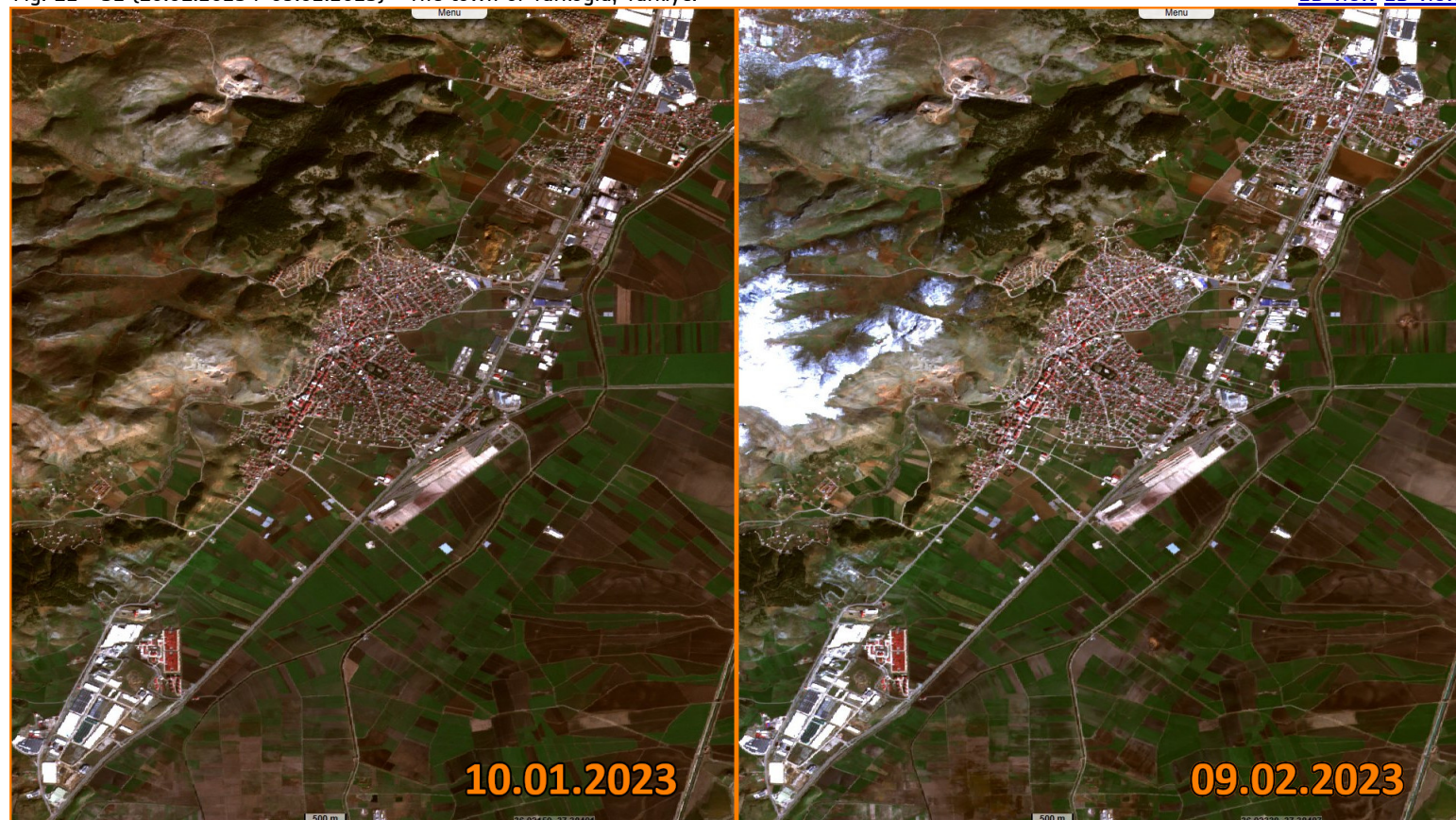
[2D view](#) [2D view](#)



"Tibikoglu said he was not sure why other municipalities did not do the same, but suspected there could have been connections between local politicians and contractors, and said more stringent government regulations could have limited such a large-scale tragedy."

Fig. 12 - S2 [10.01.2023 / 09.02.2023] - The town of Türkoğlu, Türkiye.

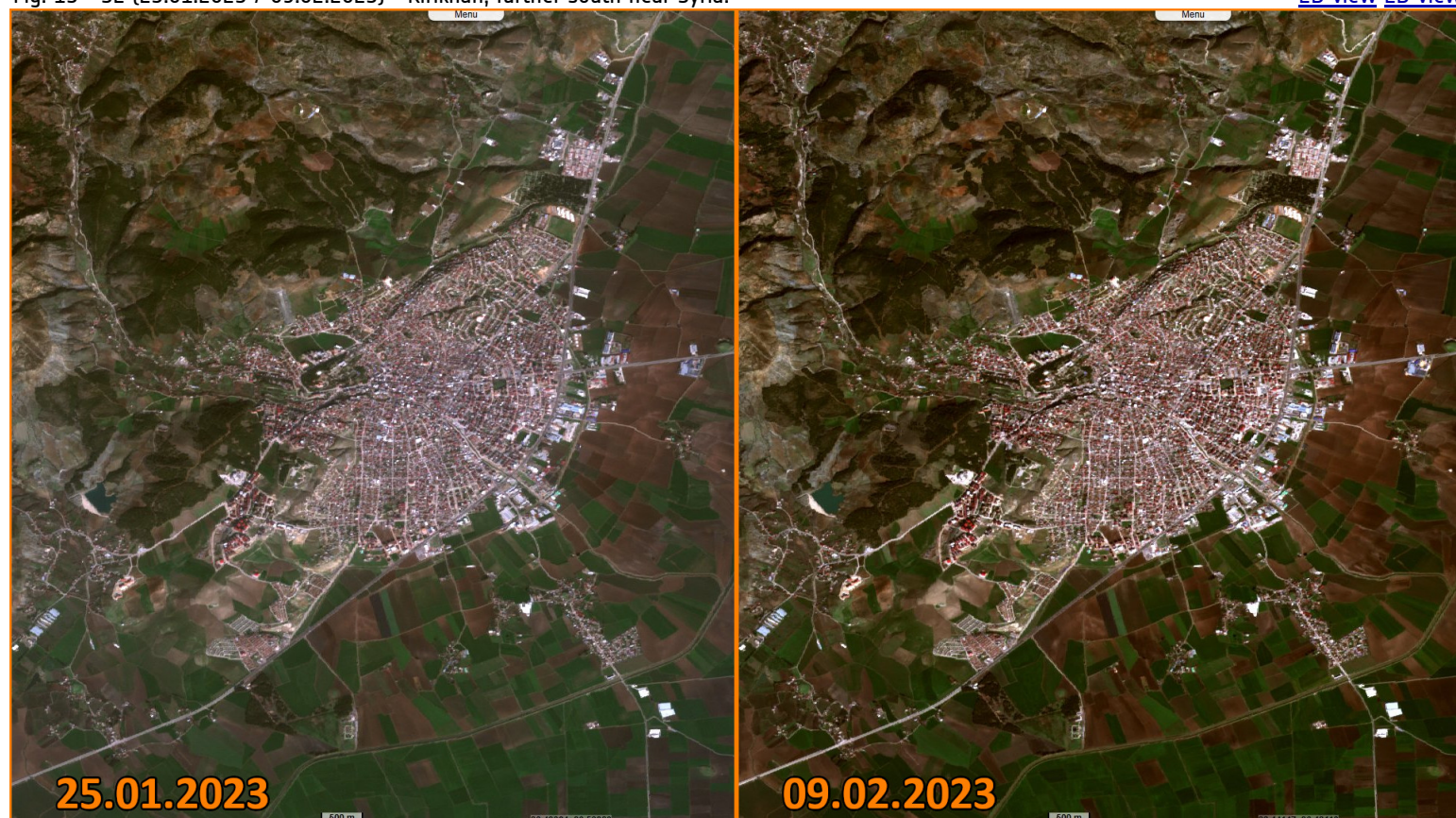
[2D view](#) [2D view](#)



"Engineers in Turkey had been raising fears over poorly constructed buildings for years, given the country's vulnerability to huge earthquakes. Concerns only grew after a 2018 law provided amnesty for buildings with illegal construction, allowing them to be used as long as the owners paid a fine to the state."

Fig. 13 - S2 [25.01.2023 / 09.02.2023] - Kirikhan, further south near Syria.

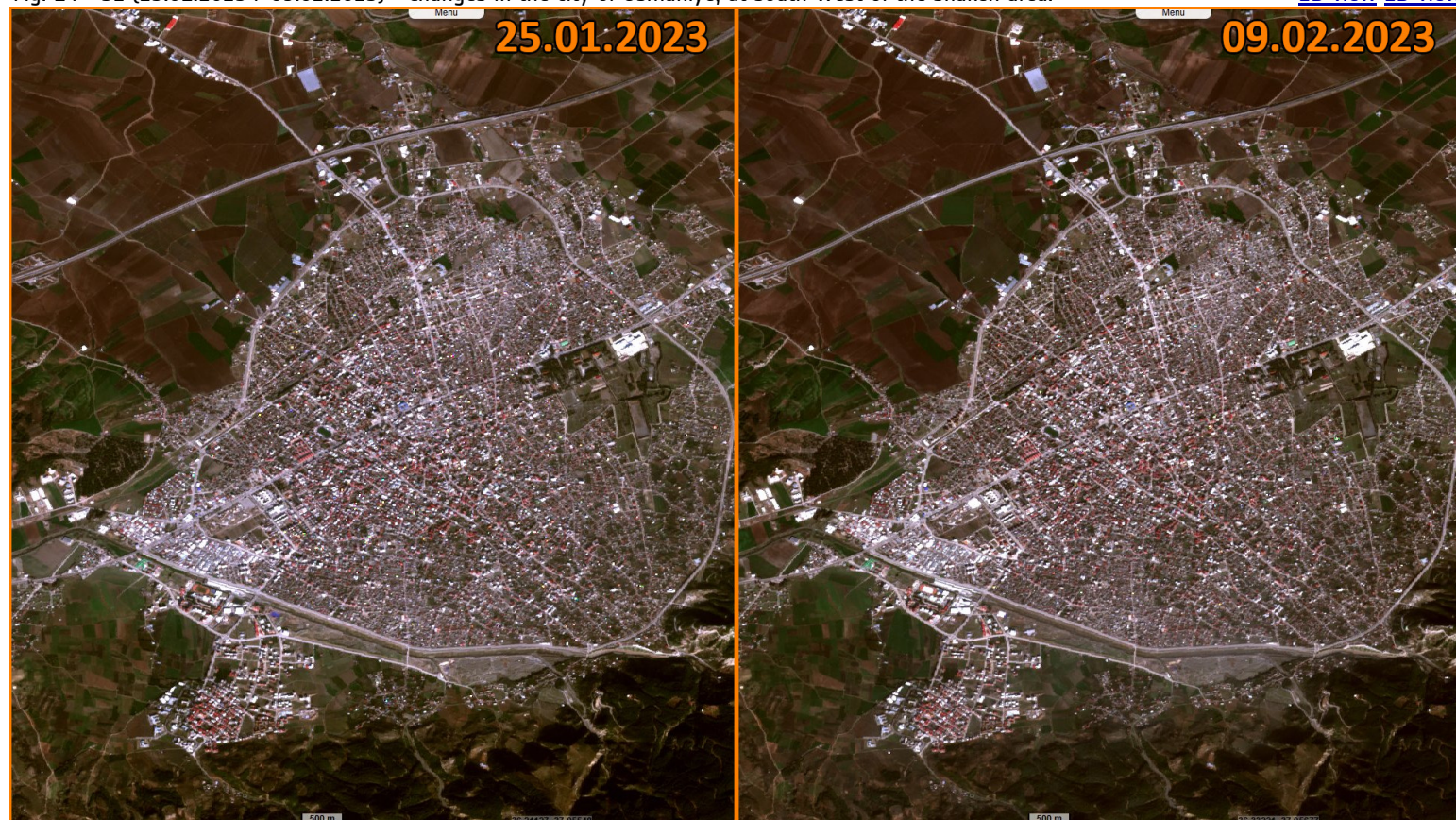
[2D view](#) [2D view](#)



"The government has vowed a thorough investigation and ordered the detention of more than 100 people over collapsed buildings, though opposition groups have accused President Recep Tayyip Erdogan of failing to ensure that regulations were properly enforced while anger has grown over the issue."

Fig. 14 - S2 [25.01.2023 / 09.02.2023] - Changes in the city of Osmaniye, at south-west of the shaken area.

[2D view](#) [2D view](#)



"Erzin is about 70 miles or so from the quake's epicenter. In cities farther from the center, as well as those close by like Osmaniye, just 12 miles away from Erzin, homes have been reduced to rubble and those who survived are still struggling to get aid."

Fig. 15 - S2 [10.01.2023 / 09.02.2023] - The town of Pazarcik, closer to the Eastern Anatolian Rift.

[2D view](#) [2D view](#)

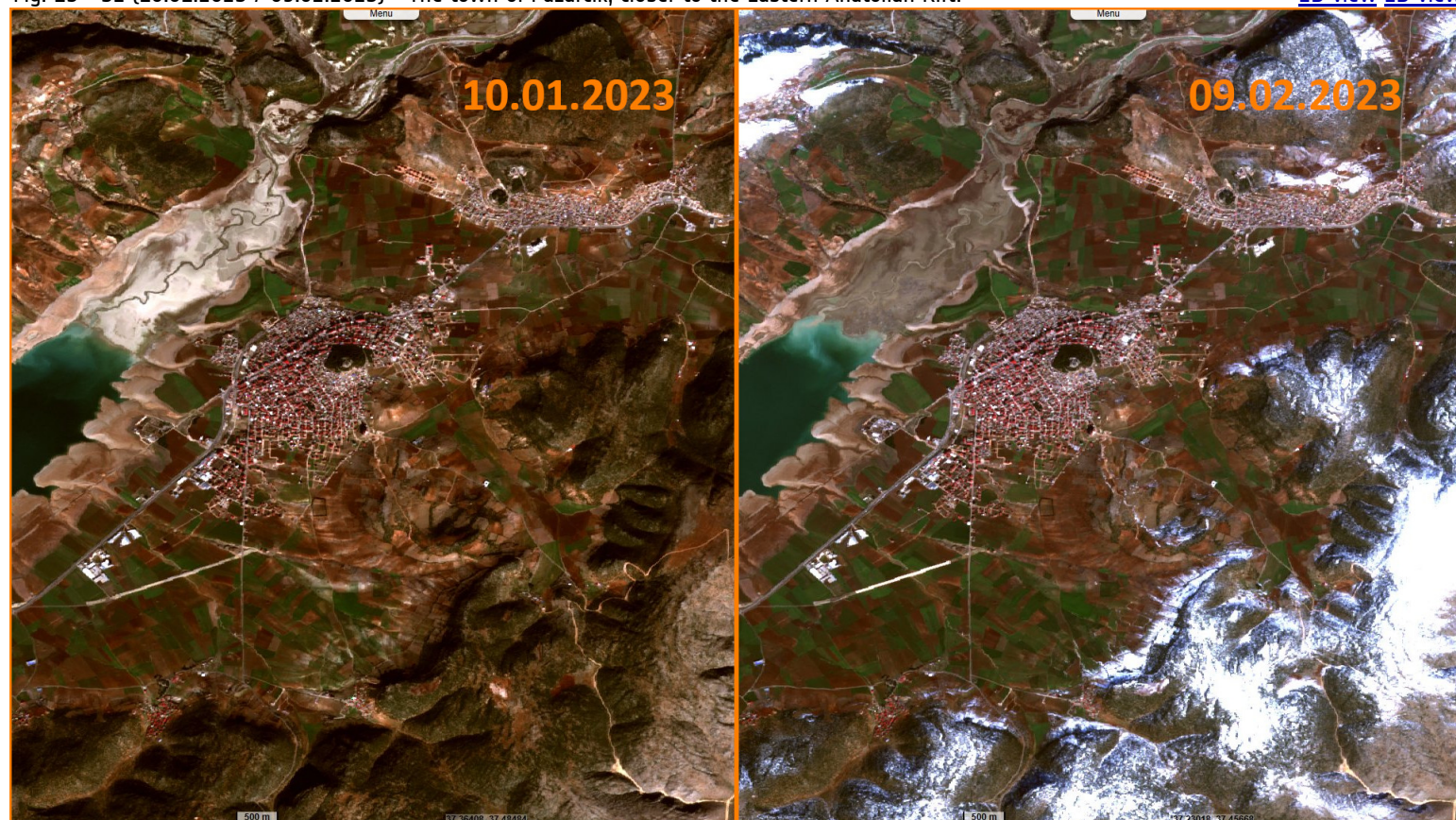


Fig. 16 - S2 [25.01.2023 / 09.02.2023] - Düziçi, near the Turkish coast.

[2D view](#) [2D view](#)

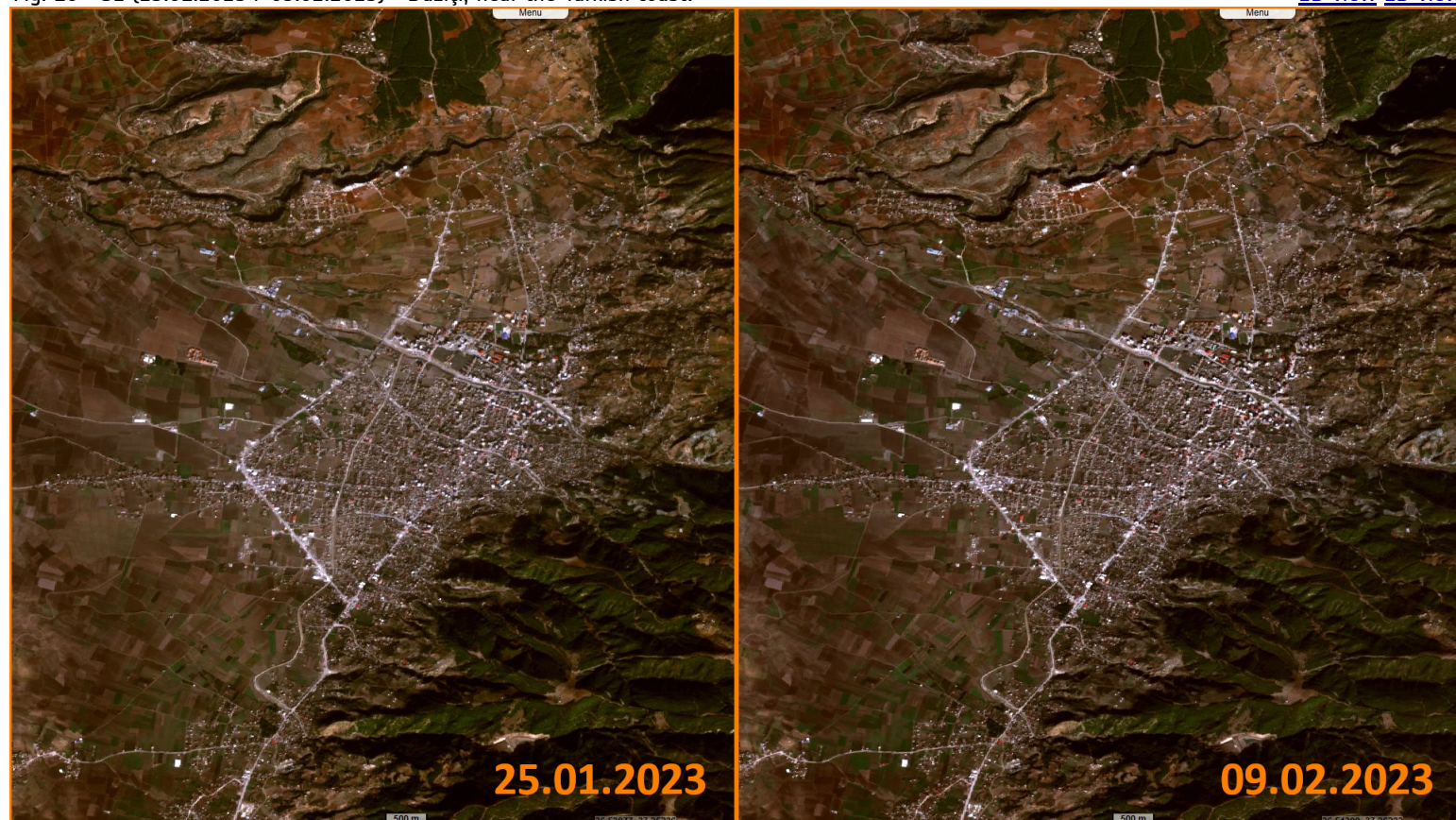
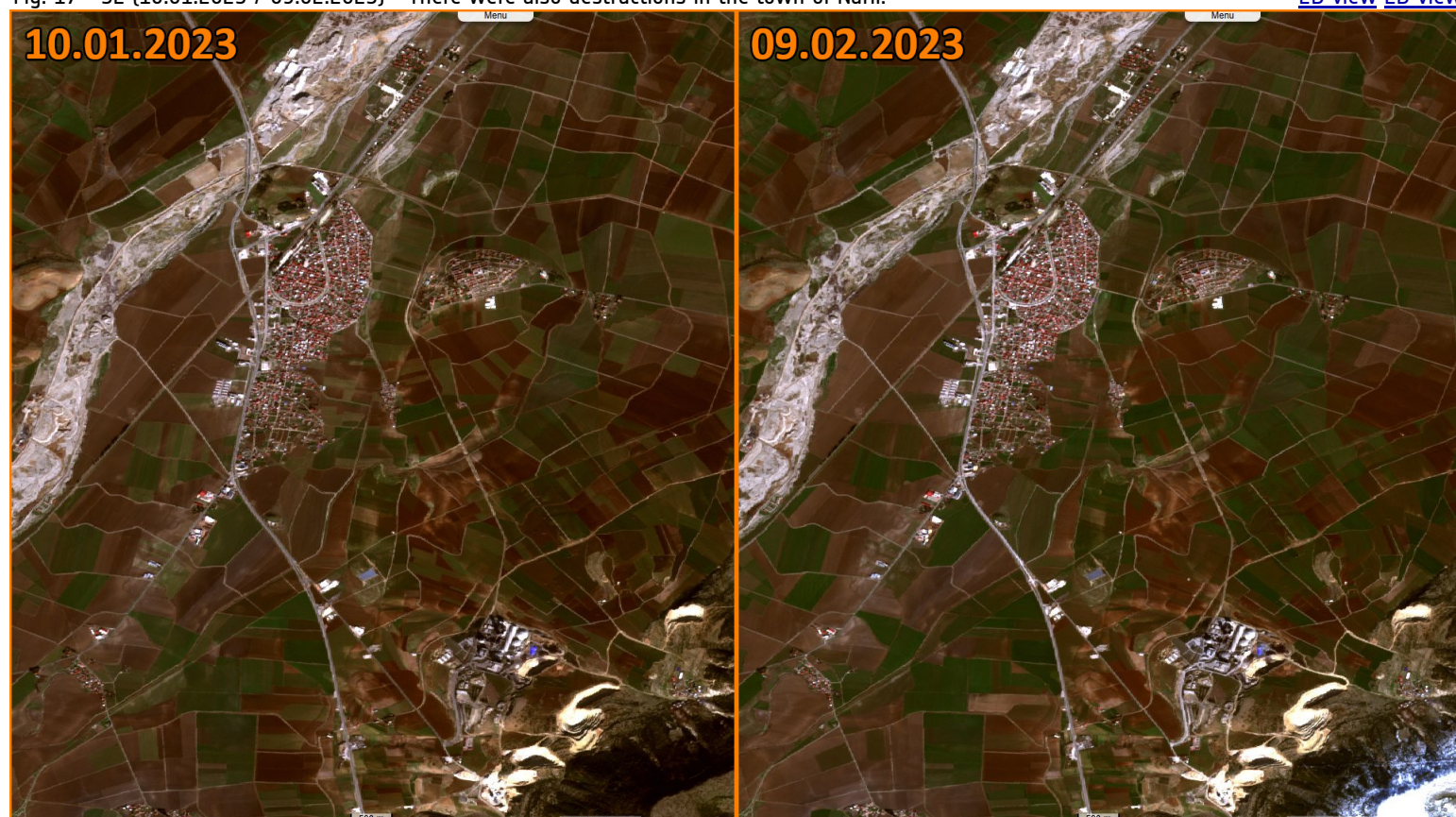














Fig. 17 - S2 [10.01.2023 / 09.02.2023] - There were also destructions in the town of Narlı.

[2D view](#) [2D view](#)



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